
Sequence Listing was accepted.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Durreshwar Anjum

Timestamp: [year=2009; month=1; day=8; hr=9; min=24; sec=14; ms=912;]

Validated By CRFValidator v 1.0.3

Application No: 10547532 Version No: 3.0

Input Set:

Output Set:

Started: 2009-01-06 15:23:04.603 **Finished:** 2009-01-06 15:23:05.946

Elapsed: 0 hr(s) 0 min(s) 1 sec(s) 343 ms

Total Warnings: 10
Total Errors: 2

No. of SeqIDs Defined: 21
Actual SeqID Count: 21

| Error code | | Error Description |
|------------|-----|---|
| W | 213 | Artificial or Unknown found in <213> in SEQ ID (11) |
| E | 224 | $<\!220\!>, <\!223\!>$ section required as $<\!213\!>$ has Artificial sequence or Unknown in SEQID (11) |
| W | 213 | Artificial or Unknown found in <213> in SEQ ID (12) |
| E | 224 | $<\!220\!>, <\!223\!>$ section required as $<\!213\!>$ has Artificial sequence or Unknown in SEQID (12) |
| W | 402 | Undefined organism found in <213> in SEQ ID (13) |
| W | 402 | Undefined organism found in <213> in SEQ ID (15) |
| W | 213 | Artificial or Unknown found in <213> in SEQ ID (16) |
| W | 213 | Artificial or Unknown found in <213> in SEQ ID (17) |
| W | 213 | Artificial or Unknown found in <213> in SEQ ID (18) |
| W | 213 | Artificial or Unknown found in <213> in SEQ ID (19) |
| W | 213 | Artificial or Unknown found in <213> in SEQ ID (20) |
| W | 213 | Artificial or Unknown found in <213> in SEQ ID (21) |

```
<110> SHINTANI et al.
<120> MEDICINAL USE OF MIP-3a INHIBITOR AND METHOD OF SCREENING
BRAIN/NERVE CELL PROTECTIVE AGENT
<130> 20039.0001USWO
<140> 10547532
<141> 2009-01-06
<150> PCT/JP2004/002774
<151> 2004-03-04
<150> JP 2003-056885
<151> 2003-03-04
<150> JP 2003-106247
<151> 2003-04-10
<160> 21
<170> PatentIn version 3.1
<210> 1
<211> 288
<212> DNA
<213> Homo sapiens
<220>
<221> CDS
<222> (1)..(288)
<223> Human MIP-3.alpha. cDNA
<220>
<221> sig_peptide
<222> (1)..(78)
<223> Human MIP-3.alpha. cDNA
<220>
<221> mat_peptide
<222> (79)..()
<223> Human MIP-3.alpha. cDNA
atg tgc tgt acc aag agt ttg ctc ctg gct gct ttg atg tca gtg ctg
                                                                     48
Met Cys Cys Thr Lys Ser Leu Leu Leu Ala Ala Leu Met Ser Val Leu
                       -20
                                           -15
cta ctc cac ctc tgc ggc gaa tca gaa gca gca agc aac ttt gac tgc
Leu Leu His Leu Cys Gly Glu Ser Glu Ala Ala Ser Asn Phe Asp Cys
-10
                   -5
                                -1 1
tgt ctt gga tac aca gac cgt att ctt cat cct aaa ttt att gtg ggc
                                                                    144
Cys Leu Gly Tyr Thr Asp Arg Ile Leu His Pro Lys Phe Ile Val Gly
           10
                               15
```

ttc aca cgg cag ctg gcc aat gaa ggc tgt gac atc aat gct atc atc

192

```
Phe Thr Arg Gln Leu Ala Asn Glu Gly Cys Asp Ile Asn Ala Ile Ile
      2.5
                         3.0
ttt cac aca aag aaa aag ttg tct gtg tgc gca aat cca aaa cag act
                                                                  240
Phe His Thr Lys Lys Leu Ser Val Cys Ala Asn Pro Lys Gln Thr
                       45
tgg gtg aaa tat att gtg cgt ctc ctc agt aaa aaa gtc aag aac atg
                                                                   288
Trp Val Lys Tyr Ile Val Arg Leu Leu Ser Lys Lys Val Lys Asn Met
55
                   60
<210> 2
<211> 96
<212> PRT
<213> Homo sapiens
<400> 2
Met Cys Cys Thr Lys Ser Leu Leu Leu Ala Ala Leu Met Ser Val Leu
                       -20
                                          -15
Leu Leu His Leu Cys Gly Glu Ser Glu Ala Ala Ser Asn Phe Asp Cys
           -5
                          -1 1
Cys Leu Gly Tyr Thr Asp Arg Ile Leu His Pro Lys Phe Ile Val Gly
          10
                              15
Phe Thr Arg Gln Leu Ala Asn Glu Gly Cys Asp Ile Asn Ala Ile Ile
       25
                           3.0
Phe His Thr Lys Lys Leu Ser Val Cys Ala Asn Pro Lys Gln Thr
                       45
Trp Val Lys Tyr Ile Val Arg Leu Leu Ser Lys Lys Val Lys Asn Met
                   60
                                       65
<210> 3
<211> 288
<212> DNA
<213> Rattus norvegicus
<220>
<221> CDS
<222> (1)..(288)
<223> Rat MIP-3.alpha. cDNA
<220>
<221> sig_peptide
<222> (1)..(75)
<223> Rat MIP-3.alpha. cDNA
<220>
<221> mat_peptide
<222> (76)..()
<223> Rat MIP-3.alpha. cDNA
<400> 3
atg gcc tgc aag cat ctg ccc ttc ctg gct ttg gcg ggg gta ctg ctg
                                                                    48
Met Ala Cys Lys His Leu Pro Phe Leu Ala Leu Ala Gly Val Leu Leu
                   -20
                                       -15
gct tac ctc tgc agc cag tca gaa gca agc aac ttt gac tgc tgc
                                                                    96
Ala Tyr Leu Cys Ser Gln Ser Glu Ala Ala Ser Asn Phe Asp Cys Cys
               -5
                               -1 1
ctc acg tac aca aag aac gtg tat cat cat gcg aga aat ttt gtg ggt
                                                                   144
Leu Thr Tyr Thr Lys Asn Val Tyr His His Ala Arg Asn Phe Val Gly
```

```
1.0
                            1.5
ttc aca aca cag atg gcc gac gaa gct tgt gac att aat gct atc atc
                                                                     192
Phe Thr Thr Gln Met Ala Asp Glu Ala Cys Asp Ile Asn Ala Ile Ile
                        30
ttt cac ctg aag tcg aaa aga tcc gtg tgc gct gac cca aag cag atc
                                                                     240
Phe His Leu Lys Ser Lys Arg Ser Val Cys Ala Asp Pro Lys Gln Ile
40
                    45
                                        50
                                                                     288
tgg gtg aaa agg att ttg cac ctc ctc agc cta aga acc aag aag atg
Trp Val Lys Arg Ile Leu His Leu Leu Ser Leu Arg Thr Lys Lys Met
               60
                                    65
<210> 4
<211> 96
<212> PRT
<213> Rattus norvegicus
<400> 4
Met Ala Cys Lys His Leu Pro Phe Leu Ala Leu Ala Gly Val Leu Leu
                   -20
                                       -15
Ala Tyr Leu Cys Ser Gln Ser Glu Ala Ser Asn Phe Asp Cys Cys
               -5
                               -1 1
Leu Thr Tyr Thr Lys Asn Val Tyr His His Ala Arg Asn Phe Val Gly
        1.0
                           15
                                                20
Phe Thr Thr Gln Met Ala Asp Glu Ala Cys Asp Ile Asn Ala Ile Ile
                       30
Phe His Leu Lys Ser Lys Arg Ser Val Cys Ala Asp Pro Lys Gln Ile
40
                   45
                                        50
Trp Val Lys Arg Ile Leu His Leu Leu Ser Leu Arg Thr Lys Lys Met
               60
                                    6.5
<210> 5
<211> 291
<212> DNA
<213> Mus musculus
<220>
<221> CDS
<222> (1)..(291)
<223> Mouse MIP-3.alpha. cDNA
<220>
<221> sig_peptide
<222> (1)..(81)
<223> Mouse MIP-3.alpha. cDNA
<220>
<221> mat_peptide
<222> (82)..()
<223> Mouse MIP-3.alpha. cDNA
<400> 5
atg gcc tgc ggt ggc aag cgt ctg ctc ttc ctt gct ttg gca tgg gta
Met Ala Cys Gly Gly Lys Arg Leu Leu Phe Leu Ala Leu Ala Trp Val
       -25
                           -20
                                                -15
ctg ctg gct cac ctc tgc agc cag gca gaa gca agc aac tac gac
                                                                      96
Leu Leu Ala His Leu Cys Ser Gln Ala Glu Ala Ala Ser Asn Tyr Asp
```

-1 1

-5

-10

| tgt tgc ctc tcg tac ata cag acg cct ctt cct tcc aga gct att gtg | 144 | | | | | | | | | | | |
|--|-----|--|--|--|--|--|--|--|--|--|--|--|
| Cys Cys Leu Ser Tyr Ile Gln Thr Pro Leu Pro Ser Arg Ala Ile Val 10 15 20 | | | | | | | | | | | | |
| ggt ttc aca aga cag atg gcc gat gaa gct tgt gac att aat gct atc | 192 | | | | | | | | | | | |
| Gly Phe Thr Arg Gln Met Ala Asp Glu Ala Cys Asp Ile Asn Ala Ile 25 30 35 | | | | | | | | | | | | |
| atc ttt cac acg aag aaa aga aaa tct gtg tgc gct gat cca aag cag | 240 | | | | | | | | | | | |
| Ile Phe His Thr Lys Lys Arg Lys Ser Val Cys Ala Asp Pro Lys Gln | | | | | | | | | | | | |
| 40 45 50 | 000 | | | | | | | | | | | |
| aac tgg gtg aaa agg gct gtg aac ctc ctc agc cta aga gtc aag aag Asn Trp Val Lys Arg Ala Val Asn Leu Leu Ser Leu Arg Val Lys Lys | 288 | | | | | | | | | | | |
| 55 60 65 | | | | | | | | | | | | |
| atg | 291 | | | | | | | | | | | |
| Met 70 | | | | | | | | | | | | |
| 70 | | | | | | | | | | | | |
| <210> 6 | | | | | | | | | | | | |
| <211> 97 | | | | | | | | | | | | |
| <212> PRT | | | | | | | | | | | | |
| <213> Mus musculus | | | | | | | | | | | | |
| <400> 6 | | | | | | | | | | | | |
| Met Ala Cys Gly Gly Lys Arg Leu Leu Phe Leu Ala Leu Ala Trp Val | | | | | | | | | | | | |
| -25 -20 -15 | | | | | | | | | | | | |
| Leu Leu Ala His Leu Cys Ser Gln Ala Glu Ala Ala Ser Asn Tyr Asp -10 -5 -1 1 5 | | | | | | | | | | | | |
| Cys Cys Leu Ser Tyr Ile Gln Thr Pro Leu Pro Ser Arg Ala Ile Val | | | | | | | | | | | | |
| 10 15 20 | | | | | | | | | | | | |
| Gly Phe Thr Arg Gln Met Ala Asp Glu Ala Cys Asp Ile Asn Ala Ile | | | | | | | | | | | | |
| 25 30 35 Ile Phe His Thr Lys Lys Arg Lys Ser Val Cys Ala Asp Pro Lys Gln | | | | | | | | | | | | |
| 40 45 50 | | | | | | | | | | | | |
| Asn Trp Val Lys Arg Ala Val Asn Leu Leu Ser Leu Arg Val Lys Lys | | | | | | | | | | | | |
| 55 60 65 | | | | | | | | | | | | |
| Met 70 | | | | | | | | | | | | |
| 70 | | | | | | | | | | | | |
| <210> 7 | | | | | | | | | | | | |
| <211> 1122 | | | | | | | | | | | | |
| <212> DNA | | | | | | | | | | | | |
| <213> Homo sapiens | | | | | | | | | | | | |
| <220> | | | | | | | | | | | | |
| <221> CDS | | | | | | | | | | | | |
| <222> (1)(1122) | | | | | | | | | | | | |
| <223> Human CCR6 cDNA | | | | | | | | | | | | |
| <400> 7 | | | | | | | | | | | | |
| atg age ggg gaa tea atg aat tte age gat gtt tte gae tee agt gaa | 48 | | | | | | | | | | | |
| Met Ser Gly Glu Ser Met Asn Phe Ser Asp Val Phe Asp Ser Ser Glu | | | | | | | | | | | | |
| 1 5 10 15 | 0.6 | | | | | | | | | | | |
| gat tat ttt gtg tca gtc aat act tca tat tac tca gtt gat tct gag Asp Tyr Phe Val Ser Val Asn Thr Ser Tyr Tyr Ser Val Asp Ser Glu | 96 | | | | | | | | | | | |
| 20 25 30 | | | | | | | | | | | | |
| atg tta ctg tgc tcc ttg cag gag gtc agg cag ttc tcc agg cta ttt | 144 | | | | | | | | | | | |
| Met Leu Cys Ser Leu Gln Glu Val Arg Gln Phe Ser Arg Leu Phe | | | | | | | | | | | | |
| 35 40 45 | | | | | | | | | | | | |

| gea cog att goe tac too ttg atc tot goe tot gog aat | | | | | | | | | | | | | | | | | | |
|--|------|------|------|-------|-------|-------|-------|------|-------|-----|-------|------|-------|-------|------|--------|-----|-----|
| 50 | gta | ccg | att | gcc | tac | tcc | ttg | atc | tgt | gtc | ttt | ggc | ctc | ctg | ggg | aat | 19 | 2 |
| Att ctq qtq qtq atc acc ttt qtc ttt tat aaq aag gcc agg tct atq The Lew Val Val It Thr Phe Ala Phe Tyr Iyb Lyb Ala Arg Ser Met | Val | Pro | Ile | Ala | Tyr | Ser | Leu | Ile | Cys | Val | Phe | Gly | Leu | Leu | Gly | Asn | | |
| The Law Val Val He Thr Phe Ala Phe Tyr Lys Lys Ala Arg Ser Met | | 50 | | | | | 55 | | | | | 60 | | | | | | |
| 68 | att | ctg | gtg | gtg | atc | acc | ttt | gct | ttt | tat | aag | aag | gcc | agg | tct | atg | 24 | 0 |
| 68 | Ile | Leu | Val | Val | Ile | Thr | Phe | Ala | Phe | Tyr | Lys | Lys | Ala | Arg | Ser | Met | | |
| The Asp Val Tyr Lou Leu Asn Met Ala IIIe Ala Asp IIe Leu Phe Val 95 | | | | | | | | | | _ | _ | _ | | | | | | |
| The Asp Val Tyr Lou Leu Asn Met Ala IIIe Ala Asp IIe Leu Phe Val 95 | aca | gac | atc | tat | ctc | tta | aac | atα | acc | att | αca | gac | atc | ctc | ttt | att | 28 | 8 |
| S | | _ | - | | | _ | | _ | _ | | - | - | | | | _ | | |
| Cate | 1111 | пър | vai | T Y T | | пси | 71511 | ricc | mu | | mu | тър | 110 | шец | | vai | | |
| Leu Thr Leu Pro Phe Trp Ala Val Ser His Ala Thr Gly Ala Trp Val 100 100 105 105 110 110 100 105 105 110 110 | ~++ | - a+ | ~+~ | ~~- | | + ~~~ | ~~~ | ~+ ~ | - a+ | | ~~~ | - a+ | ~ ~ + | ~~~ | | ~++ | 2.2 | 0.6 |
| the age and goe at goe and the same goe at the goe ate and goe ate the goe ate and same properties. The same all a fire cys Lys Leu Leu Lys Gly Ile Tyr Ala Ile Asn 115 | | | | | | | _ | | _ | | _ | | | | | _ | 33 | 00 |
| The base and stope and type and type and type are less and goe attentions of the property of | Leu | ınr | ьеu | | Pne | ırp | Ата | vaı | | HIS | Ата | ınr | СТА | | ırp | vaı | | |
| Phe Ser Ann Ala Thr Cys Lys Lys Lys Cys Lys Cys Lys Cys Cys | | | | | | | | | | | | | | | | | | |
| 115 | | _ | | _ | _ | _ | _ | _ | | | | | | _ | | | 38 | 3 4 |
| The Aan Cys Gry Met Leu Leu Eu Thr Cys Ite Ser Met Aap Arg Tyr 130 135 140 1 | Phe | Ser | | Ala | Thr | Суз | Lys | | Leu | Lys | Gly | Ile | | Ala | Ile | Asn | | |
| Phe | | | 115 | | | | | 120 | | | | | 125 | | | | | |
| atc gcc att gta cag gcg att agt cat gcg att agt cat tc cgg tcc cga tcc aga aca lea Ala Ile Val Gln Ala Thr Lys Ser Phe Arg Leu Arg Ser Arg Thr 145 | ttt | aac | tgc | aaa | atg | ctg | ctc | ctg | act | tgc | att | agc | atg | gac | cgg | tac | 43 | 32 |
| Ale Gec att gta cag gcg act aag tca tc cgg ctc cga tcc aga aca | Phe | Asn | CAa | Gly | Met | Leu | Leu | Leu | Thr | Cys | Ile | Ser | Met | Asp | Arg | Tyr | | |
| The Ala The Val Gln Ala Thr Lys Ser Phe Arg Leu Arg Ser Arg Thr 145 | | 130 | | | | | 135 | | | | | 140 | | | | | | |
| 145 cta cog ege age aga at atc atc tgc ctt gtt gtg ggg gtg tca gtc 528 Leu Pro Arg Ser Lys Ile Ile Cys Leu Val Val Trp Gly Leu Ser Val 175 atc atc tcc age tca act tt gtc ttc acc aca aaa tac ac a | atc | gcc | att | gta | cag | gcg | act | aag | tca | ttc | cgg | ctc | cga | tcc | aga | aca | 48 | 0 |
| Cata | Ile | Ala | Ile | Val | Gln | Ala | Thr | Lys | Ser | Phe | Arg | Leu | Arg | Ser | Arg | Thr | | |
| Leu Pro Arg Ser Lys 1le Tle Cys Leu Val Val Trp Gly Leu Ser Val 175 | 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| atc atc tcc agc tca act ttt gtc ttc aac caa aaa tac aac acc caa 576 Ile Ile Ser Ser Ser Thr Phe Val Phe Aan Gln Lys Tyr Asn Thr Gln 180 | cta | ccg | cgc | agc | aaa | atc | atc | tgc | ctt | gtt | gtg | tgg | ggg | ctg | tca | gtc | 52 | 8 |
| ate ate tee age tea act ttt gte tte aac caa aaa tae aac ace caa 576 Ile Ile Ser Ser Ser Thr Phe Val Phe Asn Gln Lys Tyr Asn Thr Gln 180 | Leu | Pro | Arg | Ser | Lys | Ile | Ile | Cys | Leu | Val | Val | Trp | Gly | Leu | Ser | Val | | |
| The The Ser Ser Ser Thr Phe Val Phe Ash Gln Lys Tyr Ash Thr Gln | | | | | 165 | | | | | 170 | | | | | 175 | | | |
| The The Ser Ser Ser Ser Thr Phe Val Phe Asn Gln Lys Tyr Asn Thr Gln | atc | atc | tcc | agc | tca | act | ttt | gtc | ttc | aac | caa | aaa | tac | aac | acc | caa | 57 | 6 |
| 180 180 185 190 | Ile | Ile | Ser | Ser | Ser | Thr | Phe | Val | Phe | Asn | Gln | Lys | Tyr | Asn | Thr | Gln | | |
| Gly Ser Asp Val Cys Glu Pro Lys Tyr Gln Thr Val Ser Glu Pro Ile 195 | | | | | | | | | | | | _ | _ | | | | | |
| Gly Ser Asp Val Cys Glu Pro Lys Tyr Gln Thr Val Ser Glu Pro Ile 195 | aac | agc | gat | | tat | αаа | ccc | aaq | | caq | act | ata | t.ca | | ccc | atc | 62 | : 4 |
| 195 | | _ | _ | - | _ | - | | _ | | _ | | _ | _ | | | | | |
| agg tgg aag ctg ctg atg ttg ggg ctt ggg ctt ggg ctt ggg ctt grape ctc ttt ggt ttc ttt ggt ttc ttt ggg ttc ttg ggg ctt ggg ggg | 1 | | | | - 1 - | | | _ | - 1 - | | | | | | | | | |
| Arg Trp Lys Leu Leu Met Leu Gly Leu Glu Leu Leu Phe Gly Phe Phe 210 215 220 20 220 220 220 220 220 220 220 220 | agg | taa | | cta | cta | ata | tta | | ctt | gag | cta | ctc | | aat | ttc | ttt | 67 | '2 |
| 210 215 220 atc cct ttg atg ttc atg ata ttt tgt tac acg ttc att gtc aaa acc 720 The Pro Leu Met Phe Met Ile Phe Cys Tyr Thr Phe Ile Val Lys Thr 235 240 ttg gtg caa gct cag aat tct aaa agg cac aaa gcc atc cgt gta atc 768 Leu Val Gln Ala Gln Asn Ser Lys Arg His Lys Ala Ile Arg Val Ile 255 255 ata gct gtg gtg ctt gtg ttt ctg gtt tc ctg gct tgt cag atc cac aaa gcc atc cat aac atg 816 The Ala Val Val Leu Val Phe Leu Ala Cys Gln Ile Pro His Asn Met 260 gtc ctg ctt gtg acg gct gca aat ttg ggt aaa atg acc cga tc ctg gt 8864 Val Leu Val Thr Ala Ala Asn Leu Gly Lys Met Asn Arg Ser Cys 275 cag agc gaa aag cta att ggc tat acg aaa acc gga cg aca ga gcc aca gac gac | | | _ | _ | _ | _ | _ | | | | | | | | | | | _ |
| Atc cct ttg atg ttc atg atg ttc tg atg atg ttc tgt tac acg ttc att gtc aag acc 720 Ile Pro Leu Met Phe Met Ile Phe Cys Tyr Thr Phe Ile Val Lys Thr 240 Itg gtg caa gct cag aat tct aag agg cac aag gcc atc cgt gta atc 768 Leu Val Gln Ala Gln Asn Ser Lys Arg His Lys Ala Ile Arg Val Ile 255 ata gct gtg gtg ct gtg ttt ctg gct tgt cag atc cgt gta atc 255 ata gct gtg gtg ct gtg ttt ctg gct tgt cag atc cgt gta acc acc atg 816 Ile Ala Val Val Leu Val Phe Leu Ala Cys Gln Ile Pro His Asn Met 260 260 | 9 | | -10 | | | | | 011 | | | | | | 1 | | | | |
| The Pro Leu Met Phe Met Ile Phe Cys Tyr Thr Phe Ile Val Lys Thr 225 | atc | | tta | ata | ttc | ato | | +++ | t at | tac | aca | | att | atc | 222 | acc | 72 | 20 |
| 225 | | | _ | _ | | _ | | | _ | | _ | | | _ | | | , _ | |
| ttg gtg caa gct cag aat tct aaa agg cac aaa gcc atc cgt gta atc 768 Leu Val Gln Ala Gln Asn Ser Lys Arg His Lys Ala Ile Arg Val Ile 245 250 255 ata gct gtg gtg ctt gtg ttt ctg gct ttt ctg gct tgt cag att cct cat aac atg 270 816 Ile Ala Val Val Leu Val Phe Leu Ala Cys Gln Ile Pro His Asn Met 260 260 265 270 gtc ctg ctt gtg acg gct gca aat ttg gg aaa at gas ac cga tcc tgc 270 864 Val Leu Leu Val Thr Ala Ala Asn Leu Gly Lys Met Asn Arg Ser Cys 275 280 285 285 cag agc gaa aag cta att ggc tat acg aaa act gas act gtc ctg 275 280 285 285 cag agc gaa aag cta att ggc tat acg aaa act gas act gtc ctg 275 280 285 285 cag agc gaa aag cta att ggc tat acg aaa act gaa act gtc ctg 300 295 300 295 gct ttc ctg cac tgc tgc ctg aac cct gtg acc ct gtg ctc tac gct ttt att ggg 960 960 Ala Phe Leu His Cys Cys Leu Asn Pro Val Leu Tyr Ala Phe Ile Gly 310 320 gca aag ttc aga aac tac ttt ctg aag atc ttg aag acc ctg ttg tgt tgt 1008 Gln Lys Phe Arg Asn Tyr Phe Leu Lys Ile Leu Lys Asp Leu Trp Cys 325 330 gtg aag aag aag aag tac aag tac tac ttc cta ggc ttc tcc tgt gcc ggg aag tac 1056 At g aag aag aag aag tac gag aag tac aag tac tac tcc tac gcc ttc tac gcc tgt ggg agg tac 1056 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>012</td> <td>-1-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | | | | | | | | | 012 | -1- | | | | | | | | |
| Leu Val Gln Ala Gln Asn Ser Lys Arg His Lys Ala Ile Arg Val Ile 245 | | ata | caa | act | cac | | tat | 222 | nne | cac | | acc | atc | cat | αta | | 76 | 8 |
| 245 | - | | | - | - | | | | | | | - | | _ | - | | , 0 | |
| ata gct gtg gtg gtg gtg gtg gtg gtg gtg gtg | пец | vai | OIII | AIG | | ASII | Der | цуз | Arg | | цуз | AIG | 116 | AIG | | 116 | | |
| The Ala Val Val Leu Val Phe Leu Ala Cys Gln Ile Pro His Asn Met 260 270 | 2+2 | aat | a+ a | at a | | a+ a | +++ | ata | aat | | a a a | a++ | aat | a a t | | 2 t cr | Ω1 | 6 |
| gtc ctg ctt gtg acg gtg gcd acg gct gca act ttg ggt aca atg acg gcg acg acg acg acg acg acg acg gcg acg a | | _ | | | | | | _ | _ | | _ | | | | | _ | 01 | . 0 |
| gtc ctg ctf gtg acg gcf gcg acg gcg acg gcg acg gcg acg gcg acg acg gcg tcg acg gcg tcg tcg <td>116</td> <td>ліа</td> <td>vai</td> <td></td> <td>ьeu</td> <td>vai</td> <td>rne</td> <td>цец</td> <td></td> <td>Суз</td> <td>GIII</td> <td>116</td> <td>FIO</td> <td></td> <td>ASII</td> <td>riec</td> <td></td> <td></td> | 116 | ліа | vai | | ьeu | vai | rne | цец | | Суз | GIII | 116 | FIO | | ASII | riec | | |
| Val Leu Leu Val Thr Ala Ala Asn Leu Gly Lys Met Asn Arg Ser Cys 275 280 285 285 285 285 cag age gaa aag cta att ggc tat acg aaa act gtc ctg ctg 912 Gln Ser Glu Lys Leu Ile Gly Tyr Thr Lys Thr Val Thr Glu Val Leu 290 295 300 300 300 300 300 300 300 300 300 300 300 300 300 320 320 320 320 320 320 320 320 320 320 320 320 320 330 335 3 | | | | | | | | | | | | | | | | | 0.0 | · A |
| 275 | _ | _ | | | _ | - | - | | _ | | | _ | | _ | | _ | 0.0 | 04 |
| cag age gaa aag cta att gge tat acg aaa act gte aca gaa gte ctg 912 Gln Ser Glu Lys Leu Ile Gly Tyr Thr Lys Thr Val Thr Glu Val Leu 290 295 295 300 3 | Val | ьeu | | Val | ınr | Ala | АІА | | ьeu | GIY | гуз | мес | | Arg | ser | Cys | | |
| Gln Ser Glu Lys Leu Ile Gly Tyr Thr Lys Thr Val Thr Glu Val Leu 290 | | | | | | | | | | | | | | | | | 0.1 | 2 |
| 290 295 300 960 gct ttc ctg cac tgc tgc ctg aac cct gtg ctc tac gct ttt att ggg 960 Ala Phe Leu His Cys Cys Leu Asn Pro Val Leu Tyr Ala Phe Ile Gly 305 310 315 320 cag aag ttc aga aac tac ttt ctg aag atc ttg aag gac ctg tgg tgt 1008 Gln Lys Phe Arg Asn Tyr Phe Leu Lys Ile Leu Lys Asp Leu Trp Cys 325 330 335 gtg aga agg aag tac aag tcc tca ggc ttc tcc tgt gcc ggg agg tac 1056 Val Arg Arg Lys Tyr Lys Ser Ser Gly Phe Ser Cys Ala Gly Arg Tyr | _ | _ | - | | | | - | | _ | | | _ | | _ | _ | _ | 91 | . 4 |
| get tte etg cae tge tge etg aac eet gtg ete tae get tte att ggg 960 Ala Phe Leu His Cys Cys Leu Asn Pro Val Leu Tyr Ala Phe IIe Gly 305 | GIn | | GLu | Lys | Leu | Ile | _ | Tyr | Thr | Lys | Thr | | Thr | GLu | Val | Leu | | |
| Ala Phe Leu His Cys Cys Leu Asn Pro Val Leu Tyr Ala Phe Ile Gly 305 | | | | | | | | | | | | | | | | | _ | |
| 305 310 315 320 cag aag ttc aga aac tac ttt ctg aag atc ttg aag gac ctg tgg tgt 1008 Gln Lys Phe Arg Asn Tyr Phe Leu Lys Ile Leu Lys Asp Leu Trp Cys 325 330 335 gtg aga agg aag tac aag tcc tca ggc ttc tcc tgt gcc ggg agg tac 1056 Val Arg Arg Lys Tyr Lys Ser Ser Gly Phe Ser Cys Ala Gly Arg Tyr | _ | | _ | | _ | _ | _ | | | | | | _ | | | | 96 | 00 |
| cag aag ttc aga aac tac ttt ctg aag atc ttg aag gac ctg tgg tgt 1008 Gln Lys Phe Arg Asn Tyr Phe Leu Lys Ile Leu Lys Asp Leu Trp Cys 325 330 335 gtg aga agg aag tac aag tcc tca ggc ttc tcc tgt gcc ggg agg tac 1056 Val Arg Arg Lys Tyr Lys Ser Ser Gly Phe Ser Cys Ala Gly Arg Tyr | | Phe | Leu | His | Cys | _ | Leu | Asn | Pro | Val | | Tyr | Ala | Phe | Ile | _ | | |
| Gln Lys Phe Arg Asn Tyr Phe Leu Lys Ile Leu Lys Asp Leu Trp Cys 325 330 335 gtg aga agg aag tac aag tcc tca ggc ttc tcc tgt gcc ggg agg tac 1056 Val Arg Arg Lys Tyr Lys Ser Ser Gly Phe Ser Cys Ala Gly Arg Tyr | 305 | | | | | 310 | | | | | 315 | | | | | 320 | | |
| 325 330 335 gtg aga agg aag tac aag tcc tca ggc ttc tcc tgt gcc ggg agg tac 1056 Val Arg Arg Lys Tyr Lys Ser Ser Gly Phe Ser Cys Ala Gly Arg Tyr | cag | aag | ttc | aga | aac | tac | ttt | ctg | aag | atc | ttg | aag | gac | ctg | tgg | tgt | 100 | 8 |
| gtg aga agg aag tac aag tcc tca ggc ttc tcc tgt gcc ggg agg tac 1056 Val Arg Arg Lys Tyr Lys Ser Ser Gly Phe Ser Cys Ala Gly Arg Tyr | Gln | Lys | Phe | Arg | Asn | Tyr | Phe | Leu | Lys | Ile | Leu | Lys | Asp | Leu | Trp | Cys | | |
| Val Arg Arg Lys Tyr Lys Ser Ser Gly Phe Ser Cys Ala Gly Arg Tyr | | | | | 325 | | | | | 330 | | | | | 335 | | | |
| | gtg | aga | agg | aag | tac | aag | tcc | tca | ggc | ttc | tcc | tgt | gcc | ggg | agg | tac | 105 | 66 |
| 340 345 350 | Val | Arg | Arg | Lys | Tyr | Lys | Ser | Ser | Gly | Phe | Ser | Cys | Ala | Gly | Arg | Tyr | | |
| | | | | 340 | | | | | 345 | | | | | 350 | | | | |

| tca | gaa | aac | att | tct | cgg | cag | acc | agt | gag | acc | gca | gat | aac | gac | aat | 1104 |
|------------|--------|------|------------|-----------|------------|------|--------|------------|-----------|------|-------|-----|------------|-----------|------------|------|
| Ser | Glu | | Ile | Ser | Arg | Gln | | Ser | Glu | Thr | Ala | | Asn | Asp | Asn | |
| | | 355 | | | | | 360 | | | | | 365 | | | | |
| | | | ttc | | | | | | | | | | | | | 1122 |
| Ala | 370 | ser | Phe | Inr | мет | | | | | | | | | | | |
| <210 |)> { | 3 | | | | | | | | | | | | | | |
| <211 | | 374 | | | | | | | | | | | | | | |
| <212 | 2> I | PRT | | | | | | | | | | | | | | |
| <213 | 3> I | Homo | sap | iens | | | | | | | | | | | | |
| < 400 |)> { | 3 | | | | | | | | | | | | | | |
| Met | Ser | Gly | Glu | Ser | Met | Asn | Phe | Ser | Asp | Val | Phe | Asp | Ser | Ser | Glu | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Asp | Tyr | Phe | Val | Ser | Val | Asn | Thr | | Tyr | Tyr | Ser | Val | | Ser | Glu | |
| Mot | T 011 | T OU | 20 Cys | Sor | T 011 | Gln | Glu | 25 Val | 7 ra | Gln | Pho | Sor | 30 7 ra | T 011 | Pho | |
| Mec | ьeu | 35 | Суз | Ser | шeu | GIII | 40 | vai | AIG | GIII | rne | 45 | AIG | ьeu | rne | |
| Val | Pro | Ile | Ala | Tyr | Ser | Leu | Ile | Cys | Val | Phe | Gly | Leu | Leu | Gly | Asn | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Ile | Leu | Val | Val | Ile | | Phe | Ala | Phe | Tyr | | Lys | Ala | Arg | Ser | Met | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Thr | Asp | Val | Tyr | Leu 85 | Leu | Asn | Met | Ala | Ile 90 | Ala | Asp | Ile | Leu | Phe 95 | Val | |
| Leu | Thr | Leu | Pro | Phe | Trp | Ala | Val | | His | Ala | Thr | Gly | | Trp | Val | |
| Dha | C 0 70 | 7 | 100 | The | C | T | T 0.11 | 105 | T | C1 | T1. | Т | 110 | Tla | 7.50 | |
| PHe | ser | 115 | Ala | 1111 | СУЗ | туѕ | 120 | ьeu | туз | СТУ | тте | 125 | Ala | тте | ASII | |
| Phe | Asn | | Gly | Met | Leu | Leu | | Thr | Cys | Ile | Ser | | Asp | Arg | Tyr | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Ile | Ala | Ile | Val | Gln | Ala | Thr | Lys | Ser | Phe | Arg | Leu | Arg | Ser | Arg | Thr | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Leu | Pro | Arg | Ser | Lys | Ile | Ile | CA2 | Leu | Val | Val | Trp | Gly | Leu | Ser | Val | |
| | | _ | _ | 165 | _, | _, | | _, | 170 | | _ | _ | _ | 175 | | |
| lle | lle | Ser | Ser 180 | Ser | Thr | Phe | Val | Phe 185 | Asn | GIn | Lys | Tyr | 190 | Thr | GIn | |
| Gly | Ser | Asp | Val | Cys | Glu | Pro | Lys | Tyr | Gln | Thr | Val | Ser | Glu | Pro | Ile | |
| | | 195 | | | | | 200 | | | | | 205 | | | | |
| Arg | Trp | Lys | Leu | Leu | Met | Leu | Gly | Leu | Glu | Leu | Leu | Phe | Gly | Phe | Phe | |
| | 210 | | | | | 215 | | | | | 220 | | | | | |
| | Pro | Leu | Met | Phe | | Ile | Phe | Cys | Tyr | | Phe | Ile | Val | Lys | | |
| 225 | T7-1 | C1 | 71- | C1 | 230 | C | T | 7 | TT 4 | 235 | 71- | т1. | 7 | 77-1 | 240 | |
| Leu | vai | GIN | Ala | 245 | ASII | ser | гуз | Arg | 250 | гуз | Ala | тте | Arg | 255 | ile | |
| Ile | Ala | Val | Val | | Val | Phe | Leu | Ala | | Gln | Ile | Pro | His | | Met | |
| | | | 260 | | | | | 265 | - | | | | 270 | | | |
| Val | Leu | Leu | Val | Thr | Ala | Ala | Asn | Leu | Gly | Lys | Met | Asn | Arg | Ser | Суз | |
| | | 275 | | | | | 280 | | | | | 285 | | | | |
| Gln | | Glu | Lys | Leu | Ile | _ | Tyr | Thr | Lys | Thr | | Thr | Glu | Val | Leu | |
| | 290 | _ | | | | 295 | _ | _ | | _ | 300 | | | | | |
| | Phe | Leu | His | Cys | | Leu | Asn | Pro | Val | | Tyr | Ala | Phe | Ile | _ | |
| 305 Gln | T.17 | Dha | Δνα | Δας | 310 Tur | Dha | Lou | T.v.c | т1 ^ | 315 | T.320 | Δαν | Lou | Trn | 320 Cvs | |
| GIII | пур | riie | Arg | 325 | тЛт | riie | теп | пλя | 330 | ьeu | пλя | дар | ъец | 335 | СуБ | |
| Val | Arg | Arg | Lys | Tyr | Lys | Ser | | Gly | Phe | Ser | Сув | Ala | Gly | Arg | Tyr | |

Ser Glu Asn Ile Ser Arg Gln Thr Ser Glu Thr Ala Asp Asn Asp Asn 355 360 Ala Ser Ser Phe Thr Met 370 <210> 9 <211> 1101 <212> DNA <213> Mus musculus <220> <221> CDS <222> (1)..(1101) <223> Mouse CCR6 cDNA <400> 9 atg aat tcc aca gag tcc tac ttt gga acg gat gat tat gac aca 48 Met Asn Ser Thr Glu Ser Tyr Phe Gly Thr Asp Asp Tyr Asp Asn Thr 10 gag tat tat tct att cct cca gac cat ggg cca tgc tcc cta gaa gag 96 Glu Tyr Tyr Ser Ile Pro Pro Asp His Gly Pro Cys Ser Leu Glu Glu 20 25 30 gtc aga aac ttc acc aag gta ttt gtg cca att gcc tac tcc tta ata 144Val Arg Asn Phe Thr Lys Val Phe Val Pro Ile Ala Tyr Ser Leu Ile 40 tgt gtc ttt ggc ctc ctg ggc aac att atg gtg gtg atg acc ttt gcc 192 Cys Val Phe Gly Leu Leu Gly Asn Ile Met Val Val Met Thr Phe Ala 50 55 60 ttc tac aag aaa gcc aga tcc atg act gac gtc tac ctg ttg aac atg 240